

- Q2*
- a. storing a plurality of packaged beverages in selectable queues of containers of such beverages within a vending machine;
  - b. arranging said plurality of beverage containers in contained alignment within a plurality of selectable identifiable trays within the vending machine, said trays having at least a portion thereof extending in the direction from front to back of the machine;
  - c. aligning a robotic assembly in the machine in registration with a customer selected one of said beverage container queues;
  - d. transferring one of the beverage containers from the selected container queue to the robotic assembly;
  - e. carrying the transferred beverage container to a delivery port of the vending machine; and
  - f. presenting the carried beverage container at the delivery port for customer removal from the vending machine; wherein the entire process is performed without dropping or subjecting the container to severe impact forces.
- 

*M*  
*7*  Please amend claim 8 as follows:

*M*  
*8.*  (Amended) The method of Claim 5, wherein the step of carrying includes moving said transferred beverage by said robotic assembly in a generally vertical X-Y plane of travel within said vending machine.

*M*  
 Please cancel claims 9 and 10, without prejudice.

*M*  
 Please amend claim 11 as follows:

*8* *11.* (Amended) A method of vending bottled beverages from a vending machine of the type having a transparent front viewing panel that enables customer viewing of the actual beverages held by the machine and available for vending, comprising the steps of:

- AJ*
- a. aligning a plurality of bottled beverages in at least two ordered queues of said beverages;
  - b. providing a customer selection input identifiable with at least one of said two ordered queues of beverages;
  - c. removing a bottled beverage from said one of said ordered queues by a robotic assembly in response to said customer selection input; and
  - d. moving said removed bottled beverage to a delivery port of the machine by smoothly moving the bottled beverage by said robotic assembly in a generally vertical X-Y plane within a vend selection space of the vending machine; wherein said removing and moving steps are smoothly performed without dropping or subjecting the bottled beverage to sharp impact forces.

Please cancel claim 12, without prejudice.

Please amend claim 13 as follows:

*9* *13.* (Amended) A method of vending bottled beverages from a vending machine of the type having a transparent front viewing panel that enables customer viewing of the actual beverages held by the machine and available for vending, comprising the steps of:

- a. aligning a plurality of bottled beverages in at least two ordered queues of said beverages;

- AS*
- b. providing a customer selection input identifiable with at least one of said two ordered queues of beverages;
  - c. removing a bottled beverage from said one of said ordered queues in response to said customer selection input by releasing an escapement mechanism associated with said one of said ordered queues for enabling the bottled beverage being removed to slide by gravity into said robotic assembly; and
  - d. moving said removed bottled beverage to a delivery port of the machine; wherein said removing and moving steps are smoothly performed without dropping or subjecting the bottled beverage to sharp impact forces.
- 

*AG*

Applicants confirm the Examiner's renumbering of the "second" Claim 22 through Claim 24 as renumbered Claims 23-25.

*19 23.* (Amended) The vending machine of Claim ~~22~~, <sup>18</sup> further including a container release operatively connected with at least one of said queues adjacent said discharge end thereof for selectively retaining said beverage containers in said one queue.

*20 24.* (Amended) The vending machine of Claim ~~23~~, <sup>19</sup> wherein said container release comprises only passive components.

*21 25.* (Amended) The vending machine of Claim ~~25~~, <sup>19</sup> wherein said beverage container capturer includes means cooperatively engagable with said container release of said one queue for activating said container release when removing a container from said container holder.

*AG*

Please cancel claims 32 and 33, without prejudice.

Please amend claim 34 as follows:

*2* ~~8~~ 34. (Amended) A vending machine for vending selectable products comprising:

a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion; said product delivery port including:

(i) a delivery port door operatively positioned to selectively open and close said delivery access port to access therethrough;

(ii) means cooperatively connected with said delivery port door for enabling opening of said door only when said selected product is present for removal at said delivery port; and

(iii) a lock operatively connected with said robotic assembly adjacent said product delivery port for locking said robotic assembly against movement whenever said delivery port door is open;

b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;

c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products; and

d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and

*AJ*

carry a selected said product from its associated said ordered queue to a product delivery port without dropping or jarring the selected product; wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

*AJ*

Applicants acknowledge that there is no claim 35.

Please cancel claims 36 and 37, without prejudice.

Please amend Claim 38 as follows:

*AJ*

29 38. (Amended) A vending machine for vending selectable products comprising:

- a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion;
- b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;
- c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products, wherein said support is configured to support said products of differing shapes within said queues; and
- d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to a product delivery port

without dropping or jarring the selected product; wherein said robotic assembly is operable to remove and carry said selected products of differing shapes; and wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

Please cancel claim 39, without prejudice.

Please amend claim 40 as follows:

*AG*  
30.40. (Amended) A vending machine for vending selectable products comprising:

- a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion;
- b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;
- c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products, at least one of said queues being inclined at an angle to the horizontal; and
- d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to a product delivery port without dropping or jarring the selected product;

*AG*  
wherein said robotic assembly is operable to remove said selected products from said at least one inclined queue by sliding said selected products with the help of gravity into said robotic assembly; wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

*A/10*  
In Claim 41, line 1, delete "395" and insert in place thereof --40--.

*31 41.* (Amended) The vending machine of Claim ~~40~~<sup>30</sup>, wherein said support includes a low friction floor portion in said at least one of said queues disposed at an inclined angle for supporting said products within that queue.

Please cancel claims 42-65, without prejudice.

Please add the following new claims:

*32/66.* (New) A method for vending discreet products from a vending machine, comprising:

- A/11*
- a. storing a plurality of discreet products in selectable queues of said products within a vending machine;
  - b. arranging said plurality of products in contained alignment within a plurality of selectable identifiable trays within the vending machine, said trays having at least a portion thereof extending in the direction from front to back of the machine;
  - c. aligning a robotic assembly in the machine in registration with a customer selected one of said product queues;
  - d. transferring one of said products from the selected product queue to the robotic assembly;

QH

e. carrying the transferred product to a delivery port of the vending machine; and  
f. presenting the carried product at the delivery port for customer removal from  
the vending machine; wherein the entire process is performed without subjecting the delivered  
product to severe impact forces.

*33*  
*67.* (New) A method of vending products from a vending machine of the type  
having a transparent front viewing panel that enables customer viewing of the actual products  
held by the machine and available for vending, comprising the steps of:

- a. aligning a plurality of products to be vended in at least two ordered queues of  
said products;
- b. providing a customer selection input identifiable with at least one of said two  
ordered queues of said products;
- c. removing a product from said one of said ordered queues by a robotic assembly  
in response to said customer input selection; and
- d. moving said removed product to a delivery port of the machine by smoothly  
moving the selected product by said robotic assembly in a generally vertical X-Y plane within  
a vend selection space of the vending machine; wherein said removing and moving steps are  
smoothly performed without subjecting the selected product to sharp impact forces.

*34*  
*68.* (New) A method of vending products from a vending machine of the type  
having a transparent viewing panel for customer viewing and selection of the products to be  
vended, and a support for supportably holding said products for visual presentation to a  
customer through said viewing panel, comprising the steps of:

- all*
- a. ordering said products in a plurality of selectable queues of said products on said support such that a foremost one of said products in each of said queues addresses the viewing panel at a dispensing end of its associated queue;
  - b. moving a capture assembly into alignment with the dispensing end of a customer selected one of said queues;
  - c. transferring the foremost one of said products from said customer selected one of said queues into retainment by said capture assembly;
  - d. moving said capture assembly with its retained product in view of said viewing panel toward a delivery port;
  - e. enabling customer removal of said retained product from said capture assembly through said delivery port; and
  - f. wherein the steps of transferring and moving said foremost product from said selected queue toward said delivery port are performed without subjecting said foremost product to sharp impact forces.

*25  
69.*

(New) A vending machine for vending products, comprising:

- a. a storage facility defining an enclosed internal cavity and a product delivery port opening into said internal cavity;
- b. a product holder within said internal cavity for holding a plurality of selectable said products; said product holder being disposed so as to define with said storage facility a vend selection space within said internal cavity;

- All*
- c. a product capturer for retainably removing one of said plurality of selectable products from said product holder in response to vend control signal;
  - d. a transport system operatively connected with said product capturer for moving said product capturer within said vend selection space in response to said vend control signal; and

- e. a control system operatively connected with said capturer and with said transport system for producing and providing said vend control signal thereto to cause said capturer and said transport system to cooperatively capture a selected product from said product holder and smoothly carry said captured product through said vend selection to said delivery port without subjecting said selected product to sharp impact forces.

- 34*
- 70.* (New) A method for vending discreet products, comprising:
- a. storing a plurality of products in upright standing manner in selectable queues of such products within a vending machine;
  - b. visually presenting said selectable queues of such products for viewing by a customer through a glass wall panel of the vending machine; wherein the customer can visually select a product from one of said selectable queues;
  - c. aligning a robotic assembly in the machine in registration with a customer selected one of said product queues;
  - d. transferring the visually selected product from the selected product queue in said upright standing manner to the robotic assembly;

- e. carrying the transferred product to a delivery port of the vending machine within view of the customer; and
- f. presenting the carried product at the delivery port for customer removal from the vending machine.

- all* 371. (New) A vending machine for vending selectable products comprising:
- a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port;
  - b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;
  - c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products, wherein said support is configured to support said products of differing shapes within said queues; and
  - d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to the product delivery port without dropping or jarring the selected product; wherein said robotic assembly is operable to remove and carry said selected products of differing shapes; and wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.